

REMARKS

Status of the Claims

Claims 2 and 12 are cancelled, and Claims 21-22 are new. Therefore, Claims 1, 3-11, and 13-22 are pending in the above-identified application. Claims 1, 3, 9-11, and 13-20 are amended herein. The amendments do not introduce new matter into this application. Support for the amendments and the new claims is found throughout the specification, and can be found at least as follows:

Page 3, lines 14-26;
Page 5, line 18, to page 6, line 3; and
Page 8, lines 12-25.

Status of the Specification

The written description is amended to indicate that U.S. Patent Application Serial No. 09/357,257 issued as U.S. Patent No. 6,680,351. No new subject matter was introduced.

The paragraph on page 8, lines 21-25, is amended to correct clerical and typographical errors. One of ordinary skill in the art would understand that “forming agents” should read “foaming agents” (e.g., blowing agents). No new subject matter was introduced.

Rejections Under 35 U.S.C. § 112

Claims 1 and 4-20 are rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement with respect to the term “metal halides.” In view of the amendment to Claim 1, Applicants respectfully assert that this rejection is obviated. Accordingly, Applicants respectfully request that the rejection of Claims 1 and 4-20 under 35 U.S.C. § 112, first paragraph, be withdrawn.

Double Patenting Rejection Under 35 U.S.C. § 101

Claim 2 is rejected under 35 U.S.C. § 101 as claiming the same invention as that of Claim 17 of prior U.S. Patent No. 6,680,351. Applicants assert that this rejection is obviated in view of the above amendment to Claim 1, and the cancellation of Claim 2, and respectfully request that this rejection be withdrawn.

Rejections Based on Obviousness-Type Double Patenting

Claims 1 and 4-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 17-19 of U.S. Patent No. 6,680,351. In view of the terminal disclaimer filed herewith in compliance with 37 C.F.R. § 1.321(c) over U.S. Patent 6,680,351, Applicants respectfully assert that this rejection is obviated. Accordingly, Applicants respectfully request that the rejection of Claims 1 and 4-8 under the judicially created doctrine of obviousness-type double patenting, over Claims 17-19 of U.S. Patent No 6,680,351, be withdrawn.

Rejections Under 35 U.S.C. § 102

Claims 1, 4-13, 15, 16, and 18-20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Numbers 6,156,845 to Saito et al. (“*Saito I*”); 6,231,804 to Yamauchi et al. (“*Yamauchi*”); or 6,313,225 to Saito et al. (“*Saito II*”). Claims 4-13, 15, 16, and 18-20 depend directly or indirectly from Claim 1. In view of the amendment to Claim 1, Applicants respectfully assert that these rejections are obviated.

As disclosed in independent Claim 1, the invention is directed to a polyolefin composition having high resistance to degradation. This composition comprises at least one polyolefin, bis(2,4-dicumylphenyl)pentaerythritol diphosphite, triisopropanolamine, at least one hydrotalcite component, and at least one phenol component. As claimed, the at least one polyolefin comprises a polymerization product of one or more monomers in the presence of a transition metal halide catalyst comprising a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. Further, the at least one

phenol component is present in the composition in an amount up to about 5000 mg/kg based on the mass of the polyolefin component without additives.

Saito I, *Yamauchi*, and *Saito II* do not teach each and every element of the claimed invention. Specifically, the PTO maintains that these references disclose a transition metal catalyst which includes titanium trichloride and titanium tetrachloride. According to the PTO, these compounds are both transition metal compounds and metal halides. Titanium trichloride and titanium tetrachloride, in accordance with the claimed invention, are only transition metal compounds and are not included as metal halides. As stated in the specification of the pending application on page 3, lines 21-25, "...the transition metal halide catalyst comprises a metal halide compound and a transition metal compound. The metal halide compound is selected from the group consisting of metal dihalides and metal hydroxyhalides. Suitable transition metal halide catalysts are disclosed and claimed in U.S. Patent Nos. 4,325,837 and 4,394,291." U.S. Patent Nos. 4,325,837 (on column 3, line 46, to column 4, line 1) and 4,394,291 (on column 2, lines 28-34) define the metal of the metal halide compound as Group IIA/IIB metals, such as beryllium, magnesium, calcium, and zinc, for example. Likewise, U.S. Patent Nos. 4,325,837 (on column 4, lines 37-41) and 4,394,291 (on column 2, lines 52-62) define the metal of the transition metal compound as Group IVB/VB transition metals, such as titanium, zirconium, and vanadium, for example.

Thus, the titanium trichloride and titanium tetrachloride compounds of *Saito I*, *Yamauchi*, and *Saito II*, as defined in the specification of the above-identified application, are only transition metal compounds and not included as metal halides. Therefore, *Saito I*, *Yamauchi*, and *Saito II* fail to teach each and every element of the claimed invention. Accordingly, Applicants respectfully request that the rejection of Claims 1, 4-13, 15, 16, and 18-20 under 35 U.S.C. § 102(e) as being anticipated by *Saito I*, *Yamauchi*, or *Saito II* be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Saito I*, *Yamauchi*, *Saito II*, in view of U.S. Patent Nos. 5,179,063 to Harris et al. (“*Harris*”) or 5,001,176 to *Nakazima*, further in view of U.S. Patent Nos. 3,981,957 to van Brederode et al. (“*van Brederode*”) or 4,197,398 to Floyd et al. (“*Floyd*”). Claims 2 and 12 are cancelled, and Claims 3-11 and 13-20 depend either directly or indirectly from Claim 1. Respectfully, in view of the amendment to Claim 1, this rejection is obviated.

According to the PTO, *Harris* discusses hydrotalcites as halogen scavengers; *Nakazima* discusses halogen scavengers and hydrotalcites; *van Brederode* discusses titanium dichloride, titanium trichloride, and titanium tetrachloride; and, *Floyd* discusses titanium dichloride, titanium trichloride, and titanium tetrachloride. The titanium dichloride, trichloride, and titanium tetrachloride compounds of *van Brederode* and *Floyd*, as defined in the specification of the above-identified application, are **only transition metal compounds and not included as metal halides**.

Respectfully, neither *Harris*, *Nakazima*, *van Brederode*, nor *Floyd* teach or suggest a polyolefin composition as claimed in Claim 1. As discussed above, the invention of Claim 1 is directed to a polyolefin composition having high resistance to degradation. This composition comprises at least one polyolefin, bis(2,4-dicumylphenyl)pentaerythritol diphosphite, triisopropanolamine, at least one hydrotalcite component, and at least one phenol component. As claimed, the at least one polyolefin comprises a polymerization product of one or more monomers in the presence of a transition metal halide catalyst comprising a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. Further, the at least one phenol component is present in the composition in an amount up to about 5000 mg/kg based on the mass of the polyolefin component without additives.

As stated above, the transition metal halide catalyst comprises a metal halide compound selected from metal dihalides or metal hydroxyhalides and a transition metal compound. No reference of record, either alone or in combination, teaches or suggests the

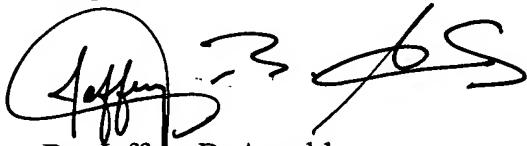
composition of the claimed invention. Thus, *Harris*, *Nakazima*, *van Brederode*, and *Floyd* all fail to remedy the deficiencies of *Saito I*, *Yamauchi*, and *Saito II* to suggest each and every element of the claimed invention. Accordingly, Applicants respectfully request that the rejection of Claims 1-20 under 35 U.S.C. § 103(a) over *Saito I*, *Yamauchi*, *Saito II*, in view of *Harris* and *Nakazima*, further in view of *van Brederode* and *Floyd*, be withdrawn.

CONCLUSION

In view of the above amendments and remarks, Applicants respectfully assert that the rejections set forth in the Office Action have been fully addressed and overcome. Hence, Applicants assert that all Claims are in condition for allowance and request that an early notice of allowance be issued. If issues may be resolved through Examiner's Amendment, or clarified in any manner, a call to the undersigned attorney at (404) 879-2433 is respectfully requested.

No fees are believed due, however, the Commissioner if hereby authorized to charge any deficiencies which may be required, or credit any overpayment to Deposit Account No. 09-0528.

Respectfully submitted,



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